HES 2000-IP-001143U1D2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Applicants: | B. Raghava Reddy; |) | |
|-------------|----------------------------------|-------------|---------|
| | Larry S. Eoff; J. Michael Wilson | n;) | |
| | Donald L. Whitfill; |) | |
| | Denise Berryhill; |) Art Unit: | Unknown |
| | Russell M. Fitzgerald; |) | |
| | Thomas Becker and |) | |
| | Jimmie D. Weaver |) | |
| | |) | |
| Serial No.: | Unknown |) | |
| | |) | |
| Filed: | Concurrently Herewith |) | |
| | |) Examiner: | Unknown |
| For: MET | HODS OF CONSOLIDATING |) | |
| FOR | MATIONS OR FORMING |) | |
| CHE | MICAL CASING OR BOTH |) | |
| WHI | LE DRILLING |) | |

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Washington, D.C. 20231

Sir:

The following documents are known to Applicants or Applicants' attorneys and are submitted for the Examiner to consider in the above-captioned application.

U.S. PATENTS

- U.S. Patent No. 2,562,866 issued on July 31, 1951 to Stewart S. Kurtz, Jr. et al.
- U.S. Patent No. 2,730,497 issued on January 10, 1956 to Tzeng Jiueq Suen et al.
- U.S. Patent No. 3,976,135 issued on August 24, 1976 to Buddy W. Anderson.
- U.S. Patent No. 4,042,032 issued August 16, 1977 to Buddy W. Anderson et al.
- U.S. Patent No. 4,105,618 issued on August 8, 1978 to Thomas R. Sifferman et al.
- U.S. Patent No. 4,579,668 issued on April 1, 1986 to Joseph U. Messenger.

- U.S. Patent No. 4,671,883 issued on June 9, 1987 to David L. Connell et al.
- U.S. Patent No. 4,784,223 issued on November 15, 1988 to Robert N. Worrall et al.
- U.S. Patent No. 4,821,802 issued April 18, 1989 to Clifford N. Meltz et al.
- U.S. Patent No. 4,964,465 issued October 23, 1990 to Billy W. Surles.
- U.S. Patent No. 5,094,762 issued on March 10, 1992 to Shawqui M. Lahalih.
- U.S. Patent No. 5,458,195 issued on October 17, 1995 to Patty L. Totten et al.
- U.S. Patent No. 5,569,324 issued October 29, 1996 to Patty L. Totten et al.
- U.S. Patent No. 5,578,672 issued November 26, 1996 to Gary W. Beall et al.
- U.S. Patent No. 5,911,282 issued June 15, 1999 to David D. Onan et al.
- U.S. Patent No. 5,913,364 issued June 22, 1999 to Ronald E. Sweatman.
- U.S. Patent No. 5,945,387 issued August 31, 1999 to Jiten Chatterji et al.
- U.S. Patent No. 5,968,879 issued October 19, 1999 to David D. Onan et al.
- U.S. Patent No. 6,012,524 issued January 11, 2000 to Jiten Chatterji et al.
- U.S. Patent No. 6,059,035 issued May 9, 2000 to Jiten Chatterji et al.
- U.S. Patent No. 6,124,246 issued September 26, 2000 to James E. Heathman et al.
- U.S. Patent No. 6,152,227 issued November 28, 2000 to Jimmie B. Lawson et al.
- U.S. Patent No. 6,167,967 B1 issued January 2, 2001 to Ronald E. Sweatman.
- U.S. Patent No. 6,209,646 B1 issued April 3, 2001 to Baireddy R. Reddy et al.
- U.S. Patent No. 6,258,757 B1 issued July 10, 2001 to Ronald E. Sweatman et al.
- U.S. Patent No. 6,271,181 B1 issued August 7, 2001 to Jiten Chatterji et al.
- U.S. Patent No. 6,328,106 B1 issued December 11, 2001 to James E. Griffith et al.
- U.S. Patent No. 6,401,817 B1 issued June 11, 2002 to James E. Griffith et al.
- U.S. Patent No. 2,356,302 issued August 22, 1944 to Thomas S. Chapman.

- U.S. Patent No. 2,649,159 issued August 18, 1953 to Jackson S. Boyer.
- U.S. Patent No. 3,087,544 issued April 30, 1963 to J.P. Forsman.
- U.S. Patent No. 3,126,959 issued March 31, 1964 to J.E. Ortloff.
- U.S. Patent No. 3,935,910 issued February 3, 1976 to Claude François Gaudy et al.
- U.S. Patent No. 4,199,484 issued April 22, 1980 to Joseph R. Murphey.
- U.S. Patent No. 4,301,016 issued November 17, 1981 to David B. Carriere et al.
- U.S. Patent No. 4,649,998 issued March 17, 1987 to Robert H. Friedman.
- U.S. Patent No. 4,722,397 issued February 2, 1988 to Robert D. Sydansk et al.
- U.S. Patent No. 4,760,882 issued August 2, 1988 to Lucille H. Novak.
- U.S. Patent No. 4,811,789 issued March 14, 1989 to Alfred R. Jennings, Jr. et al.
- U.S. Patent No. 5,295,541 issued March 22, 1994 to Ricky C. Ng et al.
- U.S. Patent No. 5,558,171 issued September 24, 1996 to Raymond E. McGlothlin et al.
- U.S. Patent No. 5,711,383 issued January 27, 1998 to Dralen T. Terry et al.
- U.S. Patent No. 5,783,527 issued July 21, 1998 to James W. Dobson, Jr.
- U.S. Patent No. 5,866,516 issued February 2, 1999 to C. Richard Costin.
- U.S. Patent No. 6,107,256 issued August 22, 2000 to Rebecca G. Udarbe et al.
- U.S. Patent No. 6,482,776 B1 issued November 19, 2002 to Gary F. Matz et al.
- U.S. Patent No. 6,508,306 B1 issued January 21, 2003 to B. Raghava Reddy et al.
- U.S. Patent No. 6,176,315 B1 issued January 23, 2001 to Baireddy R. Reddy et al.

FOREIGN DOCUMENTS

International Publication Number WO 01/98626 A1 published on December 27, 2001.

International Publication Number WO 01/98627 A1 published on December 27, 2001.

International Publication Number WO 02/04784 A2 published on January 17, 2002.

European Patent Application Number EP 0 997 515 A1 published May 3, 2000.

OTHER MATERIAL

Abstract No. XP-002255423 entitled "Stabilizing reagents for drilling solution comprise derivative of polyethyleneimine which provide stability in presence of minerals and raise temperatures," by Gembitskii, P.A. et al.

Abstract No. XP-002255422 entitled "Lost circulation zone polymer plugging – uses hardener with adduct of polyethyleneimine and copper sulphate taken in specified proportion," by Abdurakhim, N. et al.

Copies of the aforementioned references and Form PTO-1449 are submitted herewith.

Respectfully submitted,

CRAM W. RODDY

Registration No. 36,256

Halliburton Energy Services

P. O. Box 1431

Duncan, OK 73536-0440

(580) 251-3012

ATTORNEY FOR APPLICANTS

| | | 10 (24, 31, 51, 3) | | THE COOKER WA | - T | | | | | |
|---|--|------------------------|--|-------------------------------------|-----------------------|----------|----------|-------------|--|--|
| FORM PTO-1449 (Modified) | | | | ATTY. DOCKET NO. 2000-IP-001143U1D2 | SERIAL NO. Unknown | | | | | |
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT | | | APPLICANT B. Raghava Reddy et al. | | | | | | | |
| (Use several sheets if necessary) | | | FILING DATE GROUP Concurrently herewith Unknown | | | | | | | |
| | | | U.S. PA | TENT DOCUMENTS | | | | | | |
| | | | | | | | | ling | | |
| EXAMINER | | D M. | D. t. | ,, | 63 | | | e if | | |
| INITIAL | AA | Document No. | Date | Name | Class | Subclass | Appro | priate | | |
| . | | 2,562,866 | | Kurtz, Jr. et al. | 260 | 29.4 | | | | |
| - | AB AC | 2,730,497 | 01/10/56 | | 252 | 8.5 | ļ | | | |
| | AD | 3,976,135 | 08/24/76 | | 166 | 276 | | | | |
| | | 4,042,032 4,105,618 | 08/16/77 | Anderson et al. | 166 | 276 | | | | |
| | AE AF | 4,103,618 | 08/08/78 | | 260 | 33.6 | | | | |
| | AG | 4,671,883 | 06/09/87 | Messenger Connell et al. | 252 | 8.5 | | | | |
| | AH | 4,784,223 | 11/15/88 | Worrall et al. | 252 | 8.515 | | | | |
| | AI | 4,784,223 | 04/18/89 | | 166 | 287 | | | | |
| | AJ | 4,821,802 | 10/23/90 | Surles | 166 166 | 295 | | | | |
| | AK | 5,094,762 | 03/10/92 | Lahalih | 507 | 117 | | | | |
| | AIX | 3,034,702 | | IGN PATENT DOCUMENTS | 307 | 117 | <u> </u> | | | |
| TORE | | | I DOCOMENTS | | T | Trans | lation | | | |
| | | Document No. | Date | Country | Class | Subclass | Yes | No | | |
| | AL | WO 01/98626 A1 | 12/27/01 | PCT | E21B | 33/13 | Х | | | |
| | AM | WO 01/98627 A1 | 12/27/01 | PCT | E21B | 33/13 | Х | | | |
| | AN | WO 02/04784 A2 | 01/17/02 | PCT | E21B | 33/13 | Х | | | |
| | AO | EP 0 997 515 A1 | 05/03/00 | Europe | Со9К | 7/02 | Х | · | | |
| | AP | | | | | | | | | |
| ОТН | | RT (Including A | uthor, Tit | tle, Date, Pertinent E | Pages, I | Itc.) | | | | |
| - - | AR Abstract No. XP-002255423 entitled "Stabilizing reagents for drilling solution comprise derivative of polyethyleneimine which provide | | | | | | | | | |
| | | Gembitskii | stability in presence of minerals and raise temperatures," by Gembitskii, P.A. et al. | | | | | | | |
| | AS | Abstract No | Abstract No. XP-002255422 entitled "Lost circulation zone polymer plugging - uses hardener with adduct of polyethyleneimine and copper | | | | | | | |
| | | | sulphate taken in specified proportion," by Abdurakhim, N. et al. | | | | | | | |
| | AT | | - <u>F</u> | | 2 | | | | | |
| | | | | | | | | | | |
| EXA | MINE | R | | DATE CO | NSIDERE | D | | | | |

| FORM PTO-1449 (Modified) | | | | ATTY. DOCKET NO. SERIAL NO. 2000-IP-001143U1D2 Unknown | | | | | |
|--|----------|---------------------------------------|-----------------------------------|--|-------------|------------------|-------------|--------|--|
| LIST OF PATENTS AND PUBLICATIONS | | | | | | | | | |
| FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT | | | APPLICANT B. Raghava Reddy et al. | | | | | | |
| /!!eo eo | zoral | sheets if nec | occaru) | FILING DATE | ELLING DAME | | | | |
| (USE SEV | /erai | sneets ii nec | essary) | Concurrently herew | ith | GROUP Unknown | | | |
| | | | | | • | | | | |
| | | | L | S. PATENT DOCUMENTS | | | | | |
| | | | | | | | 1 | ling | |
| EXAMINER | | | 1 | | ŀ | | | e if | |
| INITIAL | | Document No. | Date | Name | Clas | ss Subclass | Appro | priate | |
| | AA | 5,458,195 | 10/17/95 | | 166 | 293 | | | |
| | AB | 5,569,324 | 10/29/96 | Totten et al. | 166 | 696 | | | |
| | AC | 5,578,672 | 11/26/96 | Beall et al. | 524 | 446 | T | | |
| | AD | 5,911,282 | 06/15/99 | Onan et al. | 175 | 72 | | , | |
| | ΑE | 5,913,364 | 06/22/99 | Sweatman | 166 | 281 | 1 | | |
| | AF | 5,945,387 | 08/31/99 | Chatterji et al. | 507 | 224 | <u> </u> | | |
| | AG | 5,968,879 | 10/19/99 | Onan et al. | 507 | 202 | | | |
| | AH | 6,012,524 | 01/11/00 | Chatterji et al. | 166 | 295 | <u> </u> | | |
| | AI | 6,059,035 | 05/09/00 | Chatterji et al. | 166 | | | | |
| | AJ | 6,124,246 | 09/26/00 | Heathman et al. | 507 | | | | |
| | AK | 6,152,227 | 11/28/00 | Lawson et al. | 166 | | <u> </u> | | |
| | 1 1 | | | | 1 | | <u> </u> | | |
| | | | FORE | CIGN PATENT DOCUMENTS | | | | | |
| | | | | | | | Translation | | |
| | | Document No. | Date | Country | Clas | s Subclass | Yes | No | |
| | 17. | | | | <u> </u> | | | | |
| | AL | | | | | · | <u> </u> | | |
| | AM | · · · · · · · · · · · · · · · · · · · | | | | | | | |
| | AN | | | | | | | - | |
| | AO | <u> </u> | | | | | | | |
| | AP | | | | | | | | |
| OTILI | תות כחיד | om /Tralvalina A | uthan Mil | -la Pata Pautinant | D | TI - 1 | | | |
| UIHI | AR | (Including A | uthor, TI | le, Date, Pertinent | Pages, | Etc.) | - | | |
| ļ | AL | | | | | | | | |
| | AS | | | | | | | | |
| ŀ | A3 | | | | | | | | |
| | 7/17 | | | | <u> </u> | | | | |
| - | AT | | | | | | | | |
| 17377 | MILLION | | | | 110 | | | | |
| EXA | MINE | K | | DATE CO | NSIDEF | KED | | | |

| FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS | | | | ATTY. DOCKET NO. 2000-IP-001143U1D2 | SERIAL NO. Unknown | | | | |
|---|------|-----------------|--------------------------------------|--|-----------------------|----------|-------------|----------------|--|
| FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) | | | APPLICANT B. Raghava Reddy et al. | | | | | | |
| | | | FILING DATE Concurrently herewith | | GROUP Unknown | | | | |
| | | | U | S. PATENT DOCUMENTS | | | | | |
| EVANTNED | | | | | | | | ing | |
| EXAMINER INITIAL | | Document No. | Date | Name | Class | Subclass | 1 | e if priate | |
| | AA | 6,167,967 B1 | 01/02/01 | Sweatman | 166 | 281 | 110010 | | |
| | AB | 6,209,646 B1 | 04/03/01 | Reddy et al. | 166 | 300 | | | |
| | AC | 6,258,757 B1 | 07/10/01 | Sweatman et al. | 507 | 219 | | | |
| | AD | 6,271,181 B1 | 08/7/01 | Chatterji et al. | 507 | 219 | | | |
| | ΑE | 6,328,106 B1 | 12/11/01 | Griffith et al. | 166 | 295 | | | |
| | AF | 6,401,817 B1 | 06/11/02 | Griffith et al. | 166 | 295 | | | |
| | AG | 2,356,302 | 08/22/44 | Chapman | 252 | 8.5 | | | |
| | AΗ | 2,649,159 | 08/18/53 | Boyer | 166 | 22 | | | |
| | AI | 3,087,544 | 04/30/63 | Forsman | 166 | 295 | | | |
| | AJ | 3,126,959 | 03/31/64 | Ortloff | 166 | 287 | | | |
| | AK | 3,935,910 | 02/03/76 | Gaudy et al. | 175 | 17 | | | |
| | | | FORE | GIGN PATENT DOCUMENTS | - | | | | |
| | | | | | | | Trans | lation | |
| | | Document No. | Date | Country | Class | Subclass | Yes | No | |
| | AL | | | | | | | | |
| | AM | | | | | | | | |
| | AN | | | | | | | | |
| | AO | | | | | | | | |
| | AP | | <u></u> | | | | | | |
| OTHE | R AF | RT (Including A | uthor. Tit | le, Date, Pertinent | Pages. | Etc.) | | | |
| | AR | | 4011017 110 | 120, 2000, 10101110110 | rages, , | 300.7 | | | |
| | Ì | | | | | | | | |
| | AS | | | | | | | | |
| | AT | | | | | | | | |
| | | | . | | | | | | |
| EXAN | MINE | R R | | DATE CO | NSIDERE | D | | | |

| | | (Modified) | TCAMTONG | ATTY. DOCKET NO. SERIAL NO. 2000-IP-001143U1D2 Unknown | | | | | |
|---------------------------------------|-------|---|--------------|--|----------|--------------------|--------|----------------|--|
| | APPI | ATENTS AND PUBL ICANT'S INFORM LOSURE STATEME | ATION | APPLICANT B. Raghava Reddy et al. | | | | | |
| (Use set | veral | sheets if nec | essary) | FILING DATE Concurrently herewi | | GROUP . Unknown | | | |
| | | | Ľ | J.S. PATENT DOCUMENTS | | | | | |
| CVAMINED | | | | | | | 1 | ling | |
| EXAMINER INITIAL | | Document No. | Date | Name | Class | Subclass | | e if priate | |
| | AA | 4,199,484 | 04/22/80 | Murphey | 260 | 13 | | | |
| · · · · · · · · · · · · · · · · · · · | AВ | 4,301,016 | 11/07/81 | Carriere et al. | 252 | 8.5 | | | |
| · · · · · · | AC | 4,649,998 | 03/17/87 | Friedman | 166 | 294 | | | |
| | AD | 4,722,397 | 02/02/98 | Sydansk et al. | 166 | 295 | | | |
| | AE | 4,760,882 | 08/02/88 | Novak | 166 | 295 | | | |
| | AF | 4,811,789 | 03/14/89 | Jennings, Jr. et al. | 166 | 276 | | | |
| | AG | 5,295,541 | 03/22/94 | Ng | 166 | 277 | | | |
| | AH | 5,558,171 | 09/24/96 | McGlothlin et al. | 175 | 64 | | | |
| | ΑI | 5,711,383 | 01/27/98 | Terry et al. | 175 | 72 | | | |
| | AJ | 5,783,527 | 07/21/98 | Dobson, Jr. et al. | 507 | 269 | | | |
| | AK | 5,866,516 | 02/02/99 | Costin | 507 | 103 | 1 | | |
| | | | FORE | ZIGN PATENT DOCUMENTS | | | | | |
| | | | 1 | | | <u> </u> | Trans | lation | |
| | | Document No. | Date | Country | Class | Subclass | Yes | No | |
| | AL | | | | | | | | |
| | AM | | | | | | | | |
| · · | AN | | | | | | | | |
| | AO | | | | | | | | |
| | AP | | | | | | ! ! | | |
| OTHI | ER AF | RT (Includina A | uthor, Tit | tle, Date, Pertinent F | Pages. F | ita.) | | | |
| | AR | | , | | | | | | |
| | | | | , | | | | | |
| | AS | | | | | | | | |
| | AT | | | | | | | | |
| | | | | | | | | | |
| EXA | MINE | R | | DATE COM | ISIDERE | | _ | <u> </u> | |
| | | | | | | | | | |

| FORM PTO-1449 (Modified) | | | | ATTY. DOCKET NO. SERIAL NO. 2000-IP-001143U1D2 Unknown | | | | | | |
|---|-------------|-----------------|------------|--|---------|------------|--------------|--------------|--|--|
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT | | | | APPLICANT B. Raghava Reddy et al. | | | | | | |
| (Use several sheets if necessary) | | | | FILING DATE GROUP Concurrently herewith Unknown | | | | | | |
| | | | L | J.S. PATENT DOCUMENTS | | | | | | |
| | | | | | | | 1 | ling | | |
| EXAMINER | | | 1 | | - | | | e if | | |
| INITIAL | | Document No. | Date | Name | Clas | | Appro | priate | | |
| | AA | 6,107,256 | 08/22/00 | Udarbe et al. | 507 | | | | | |
| | AB | 6,482,776 B1 | 11/19/02 | Matz et al. | 507 | 1 | | | | |
| | AC | 6,508,306 B1 | 01/21/03 | Reddy et al. | 166 | | | | | |
| | AD | 6,176,315 B1 | 01/23/01 | Reddy et al. | 166 | 295 | | | | |
| | AE | | | | | | | | | |
| | AF | | | | | | | | | |
| | AG | | _ | | | | | _ | | |
| | AH | | | | | | | | | |
| - | ΑI | | | | | | | | | |
| | AJ | | | | | | | | | |
| | AK | | | | | | | | | |
| | | | FORE | EIGN PATENT DOCUMENTS | 3 | | • | | | |
| | | Document No. | Date | Country | Clas | s Subclass | Trans Yes | lation No | | |
| | | | | | | | | | | |
| | AL | | | | | | | | | |
| | AM | | | | | | | | | |
| | .AN | | | | | 1 | | | | |
| | AO | , | | | | | | | | |
| | AP | | | | | | | | | |
| OTHE | ER AF | RT (Including A | uthor, Tit | tle, Date, Pertinent | Pages, | Etc.) | | | | |
| | AR | | | | | | | | | |
| | AS | | | | | | | | | |
| | AT | | | | | | | | | |
| İ | 171 | | | | | | | | | |
| | MINE | l P | | DATE CO | MOTOR | פפס | | | | |
| EAA | T-1 T [A [] | | | DATE | ついりていたと | ED | | | | |